

**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION**  
Washington, D.C. 20549

**FORM S-8**

**REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933**

**PHARMATHENE, INC.**

(Exact name of registrant as specified in its charter)

**Delaware**

(State or other jurisdiction of  
incorporation or organization)

**20-2726770**

(I.R.S. Employer  
Identification No.)

**One Park Place, Suite 450**

**Annapolis, MD 21401**

**(410) 269-2600**

(Address of Principal Executive Offices)

**2007 Long-Term Incentive Compensation Plan**

(Full title of the plan)

**David P. Wright**

**Chief Executive Officer**

**PharmAthene, Inc.**

**One Park Place, Suite 450**

**Annapolis, MD 21401**

**(410) 269-2600**

(Name, address, including zip code, and telephone number,  
including area code, of agent for service)

**With a copy to:**

**Jeffrey A. Baumel, Esq.**

**Sonnenschein, Nath & Rosenthal, LLP**

**1221 Avenue of the Americas**

**New York, New York 10020**

**(212) 768-6700**

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

Large Accelerated Filer    Accelerated Filer    Non-Accelerated Filer    Smaller Reporting Company

**CALCULATION OF REGISTRATION FEE**

Title of each class of securities to be registered	Amount to be registered(1)	Proposed maximum offering price per share	Proposed maximum aggregate offering price	Amount of registration fee
Common Stock, par value \$0.0001 per share	400,876	\$3.69(2)	\$1,479,232(2)	\$58.13(2)
Common Stock, par value \$0.0001 per share	3,583,223	\$4.12(3)	\$14,762,879(3)	\$580.18(3)
Common Stock, par value \$0.0001 per share	383,094	\$1.50(4)	\$574,641(4)	\$22.58(4)

- (1) Represents the number of shares of common stock issuable under the Registrant's 2007 Long-Term Incentive Compensation Plan, as amended on June 13, 2008 (the "Plan"). Pursuant to Rule 416 of the Securities Act of 1933, as amended (the "Securities Act"), the Registrant is also registering hereunder an indeterminate number of additional shares of common stock that shall be issuable to prevent dilution resulting from stock splits, stock dividends or similar transactions.
- (2) With respect to options previously granted under the Registrant's 2002 Long-Term Incentive Plan, which were subsequently converted into options under the Plan. Solely for the purpose of calculating the registration fee, the maximum aggregate offering price has been calculated pursuant to Rule 457(h) under the Securities Act based on the weighted average exercise price of such options.
- (3) With respect to stock options previously granted under the Plan. Solely for the purpose of calculating the registration fee, the maximum aggregate offering price has been calculated pursuant to Rule 457(h) under the Securities Act based on the weighted average exercise price of such options.
- (4) Solely for the purpose of calculating the registration fee, the maximum offering price for shares for which the grant price or exercise price is unknown has been calculated pursuant to Rules 457(c) and Rule 457(h) of the Securities Act based on the average of the high and low sales prices of the Registrant's common stock as reported on the NYSE Alternext US on December 17, 2008.

This registration statement on Form S-8 is being filed with the Securities and Exchange Commission (“SEC”) by PharmAthene, Inc. (the “Company”) relating to 4,367,193 shares of the Company’s common stock, par value \$0.0001 per share (the “Common Stock”), issuable to employees, directors and consultants of the Company and its affiliates under the Company’s 2007 Long-Term Incentive Compensation Plan, as amended on June 13, 2008.

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## PART I

### INFORMATION REQUIRED IN THE SECTION 10(a) PROSPECTUS

The information specified in Item 1 and Item 2 of Part I of this Registration Statement is omitted from this Registration Statement in accordance with the provisions of Rule 428 under the Securities Act of 1933, as amended (the “Securities Act”), and the introductory note to Part I of Form S-8.

## PART II

### INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

#### Item 3. Incorporation of Documents by Reference.

We are incorporating by reference important business and financial information about us that we file with the SEC. Any information that we incorporate by reference is considered part of this prospectus. Information that we file with the SEC at a later date pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934, prior to the filing of a post-effective amendment which indicates that all securities offered have been sold or which deregisters all securities then remaining unsold, shall be deemed to be incorporated by reference in the registration statement and to be part thereof from the date of filing of such information and automatically adds to, updates or supersedes the information listed below.

We incorporate by reference the following documents we have filed with the SEC:

- our Annual Report on Form 10-K/A for the year ended December 31, 2007 (File No. 001-32587);
- our Annual Report on Form 10-K for the year ended December 31, 2007 (File No. 001-32587);
- our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2008, June 30, 2008 and September 30, 2008 and on Form 10-Q/A for the quarter ended June 30, 2008 (File No. 001-32587);
- our Current Reports on Form 8-K and/or 8-K/A filed with the SEC on March 14, 2008, March 26, 2008, April 8, 2008, May 2, 2008, June 18, 2008, June 19, 2008, July 16, 2008, October 1, 2008 and October 6, 2008;
- our Definitive Proxy Statement filed with the SEC on May 15, 2008, including any amendments or supplements filed for the purpose of updating same;
- all documents filed by us with the SEC under Section 13(a), 13(c), 14 or 15(d) of the Exchange Act after the date of this prospectus and before the termination of this offering; and
- the description of our common stock contained in our registration statement on Form 8-A filed with the SEC on July 27, 2005, including any amendments or reports filed for the purpose of updating such description, including the description of the Company’s securities set forth in the Definitive Proxy Statement filed with the SEC on July 16, 2007, on page 159 under the caption “Description of Securities.”

To the extent that any information contained in any Current Report on Form 8-K, or any exhibit thereto, is furnished to, rather than filed with, the SEC, such information or exhibit is specifically not incorporated by reference in this prospectus.

#### Item 4. Description of Securities.

Not applicable.

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#### Item 5. Interests of Named Experts and Counsel.

None.

#### Item 6. Indemnification of Directors and Officers.

Our certificate of incorporation provides that the Company, to the full extent permitted by Section 145 of the Delaware General Corporation Law, as amended from time to time, shall indemnify all persons whom it may indemnify pursuant thereto. It further provides that expenses (including attorneys’ fees) incurred by an officer or director in defending any civil, criminal, administrative, or investigative action, suit or proceeding for which such officer or director may be entitled to indemnification hereunder shall be paid by the Company in advance of the final disposition of such action, suit or proceeding upon receipt of an undertaking by or on behalf of such director or officer to repay such amount if it shall ultimately be determined that he is not entitled to be indemnified by the Company as authorized thereby.

Our bylaws provide the Company with the power to indemnify its officers, directors, employees and agents or any person serving at the Company’s request as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise to the fullest extent permitted by

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to the Company's directors, officers, and controlling persons pursuant to the foregoing provisions, or otherwise, the Company has been advised that in the opinion of the Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment of expenses incurred or paid by a director, officer or controlling person in a successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Company will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to the court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

All of our directors and officers are covered by insurance policies maintained by the Company against certain liabilities for actions taken in their capacities as such, including liabilities under the Securities Act.

**Item 7. Exemption from Registration Claimed.**

Not applicable.

**Item 8. Exhibits.**

<u>Exhibit No.</u>	<u>Description</u>
4.1	2007 Long-Term Incentive Compensation Plan*
5.1	Opinion of Sonnenschein, Nath & Rosenthal LLP
23.1	Consent of Sonnenschein, Nath & Rosenthal LLP (included in Exhibit 5.1)
23.2	Consent of Ernst & Young LLP, Independent Registered Public Accounting Firm
24.1	Powers of Attorney (included on the signature page of this Registration Statement)

\* Incorporated by reference to the Definitive Proxy Statement on Schedule 14A filed by the Registrant on May 15, 2008.

**Item 9. Undertakings.**

(a) The undersigned Registrant hereby undertakes:

(1) to file, during any period in which offers or sales are being made, a post-effective amendment to this Registration Statement:

(i) to include any prospectus required by Section 10(a)(3) of the Securities Act;

(ii) to reflect in the prospectus any facts or events arising after the effective date of the Registration Statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the Registration Statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than 20 percent change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective Registration Statement; and

(iii) to include any material information with respect to the plan of distribution not previously disclosed in the Registration Statement or any material change to such information in the Registration Statement;

provided, however, that paragraphs (a)(1)(i) and (a)(1)(ii) do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in periodic reports filed with or furnished to the Commission by the Registrant pursuant to Section 13 or Section 15(d) of the Exchange Act that are incorporated by reference in the Registration Statement.

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(2) that, for the purpose of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new Registration Statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(3) to remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(b) The undersigned Registrant hereby undertakes that, for purposes of determining any liability under the Securities Act, each filing of the Registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Exchange Act (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Exchange Act) that is incorporated by reference in the Registration Statement shall be deemed to be a new Registration Statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(h) Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the Registrant pursuant to the foregoing provisions, or otherwise, the Registrant has been advised that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication of such issue.

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## SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Annapolis, State of Maryland on December 19, 2008.

PHARMATHENE, INC.  
(Registrant)

By: /s/ David P. Wright  
David P. Wright  
Chief Executive Officer

## POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, each of the undersigned constitutes and appoints David P. Wright, Christopher C. Camut and Jordan P. Karp, and each of them, as attorneys-in-fact and agents, with full power of substitution and resubstitution, for and in the name, place and stead of the undersigned, in any and all capacities, to sign any and all amendments (including post-effective amendments) to this Registration Statement or any Registration Statement for this offering that is to be effective upon the filing pursuant to Rule 462(b) under the Securities Act of 1933, as amended, and all post-effective amendments thereto, and to file the same, with all exhibits thereto and all other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as the undersigned might or could do in person, hereby ratifying and confirming all that each of said attorney-in-fact or substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed by the following persons in the capacities indicated, on December 19, 2008.

<u>Signature</u>	<u>Title</u>
<u>/s/ David P. Wright</u> David P. Wright	Chief Executive Officer and Director (Principal Executive Officer)
<u>/s/ Christopher C. Camut</u> Christopher C. Camut	Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)
<u>/s/ John Pappajohn</u> John Pappajohn	Chairman of the Board
<u>/s/ Derace Schaffer</u> Derace Schaffer, MD	Director

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<u>/s/ John Gill</u> John Gill	Director
<u>/s/ James H. Cavanaugh</u> James H. Cavanaugh, Ph.D.	Director
<u>/s/ Steven St. Peter</u> Steven St. Peter, M.D.	Director
<u>/s/ Joel McCleary</u> Joel McCleary	Director

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## EXHIBIT INDEX

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\* Incorporated by reference to the Definitive Proxy Statement on Schedule 14A filed by the Registrant on May 15, 2008.

## [Letterhead of Sonnenschein Nath &amp; Rosenthal LLP]

December 19, 2008

PharmAthene, Inc.  
One Park Place  
Suite #450  
Annapolis, MD 21401

Re: Registration Statement on Form S-8

Ladies and Gentlemen:

In our capacity as counsel to PharmAthene, Inc., a Delaware corporation (the "**Company**"), we have been asked to render this opinion in connection with a registration statement on Form S-8 (the "**Registration Statement**"), being filed contemporaneously herewith by the Company with the Securities and Exchange Commission under the Securities Act of 1933, as amended (the "**Act**"), covering 4,367,193 shares (the "**Shares**") of common stock, par value \$0.0001 per share, of the Company issuable pursuant to the terms of the Company's 2007 Long-Term Incentive Compensation Plan, as amended (the "**Plan**").

In connection with rendering this opinion, we have examined and are familiar with (i) the Company's Amended and Restated Certificate of Incorporation, as amended, (ii) the Company's By-Laws, (iii) the Plan, (iv) the Registration Statement, (v) corporate proceedings of the Company relating to the Plan, and (vi) such other instruments and documents as we have deemed relevant under the circumstances.

In making the aforesaid examinations, we have assumed the genuineness of all signatures and the conformity to original documents of all copies furnished to us as original or photostatic copies. We have also assumed that the corporate records furnished to us by the Company include all corporate proceedings taken by the Company to date.

Based upon the foregoing and subject to the assumptions and qualifications set forth herein, we are of the opinion that the Shares have been duly and validly authorized and, when issued and paid for in accordance with the terms of the Plan, will be duly and validly issued, fully paid and non-assessable.

The foregoing opinion is limited to the laws of the United States of America and Delaware corporate law (which includes the Delaware General Corporation Law and applicable provisions of the Delaware constitution, as well as reported judicial opinions interpreting same) and does not purport to express any opinion on the laws of any other jurisdiction.

We hereby consent to the use of our opinion as an exhibit to the Registration Statement. In giving such consent, we do not hereby admit that we come within the category of persons whose consent is required under Section 7 of the Act, or the rules and regulations of the Securities and Exchange Commission thereunder.

Very truly yours,

**SONNENSCHN NATH & ROSENTHAL LLP**

By: /s/ Jeffrey A. Baumel  
A Member of the Firm

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Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in the Registration Statement (Form S-8 No. 333-00000) pertaining to the 2007 Long-Term Incentive Compensation Plan of PharmAthene, Inc. of our report dated March 31, 2008, with respect to the consolidated financial statements of PharmAthene, Inc. and subsidiaries included in its Annual Report (Form 10-K) for the year ended December 31, 2007, filed with the Securities and Exchange Commission.

/s/ Ernst & Young LLP

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